You have to print all output in the output file specified by main arguments, or you won’t get any score.

Output format for Data Structure Final Project

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1. NewBike Class License Mile StationName

Example:

Input : NewBike Lady 00000 0 Hongshulin

Output : New bike is received by Station Hongshulin.

---

2. JunkIt License

Example:

1. General case.

Input : JunkIt TPI01

Output : Bike TPI01 is deleted from Danshui.

2. If the bike is now being rented.

Input : JunkIt TPI03

Output : Bike TPI03 is now being rented.

3. If the bike doesn't exist.

Input : JunkIt KKK23

Output : Bike KKK23 does not belong to our company.

---

3. Rent StationName Class

Example:

1. If there is no bike of specific class in the station.

Input : Rent Danshui Lady

Output : No free bike is available.

2. If there exists a bike of specific class in the station.

Input : Rent Danshui Lady

Output : A bike is rented from Danshui.

---

4. Returns StationName License Mile

Example:

Input : Returns Hongshulin 00A03 190

Output : Rental charge for this bike is 1245.

---

5. Trans StationName License

Example:

1. General case.

Input : Trans Jingmei 00A09

Output : Bike 00A09 is transferred to Jingmei.

2. If the bike doesn't exist.

Input : Trans Jingmei 0FA09

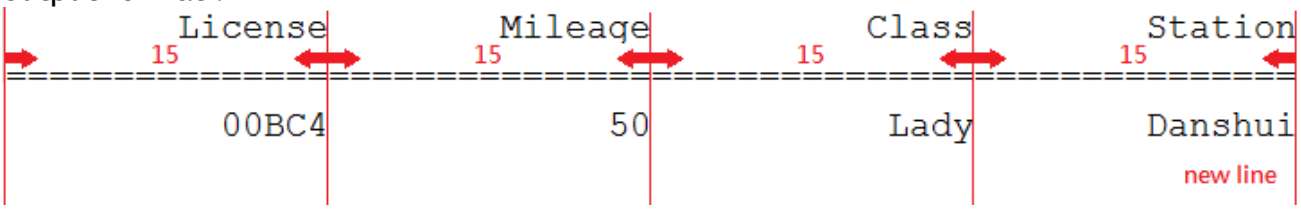
Output : Bike 0FA09 does not belong to our company.

3. If bike is now being rented.
   Input : Trans Jingmei 0AA09
   Output : Bike 0AA09 is now being rented.

---

6. Inquire License

output format :



Hint: (c++)

```
#include<iomanip> //using setw()
std::cout << setw(15) << "License" << setw(15) << "Mileage"<< …….
```

Example:

1. If the bike does not exist.
   Input : Inquire 00BC4
   Output : Bike 00BC4 does not belong to our company.
2. General case.
   Input : Inquire 00BC4
   Output :

```
1        License        Mileage          Class        Station
2  ============================================================
3          00BC4             50           Lady        Danshui
4
```

---

7. StationReport StationName

Print StationName and the following kinds of heaps in it. Each heap is printed from its first node to the last one.

(1)Free Bike Heaps:

Print “Free Bikes” and the heaps from Electric=0 to Hybrid=3.

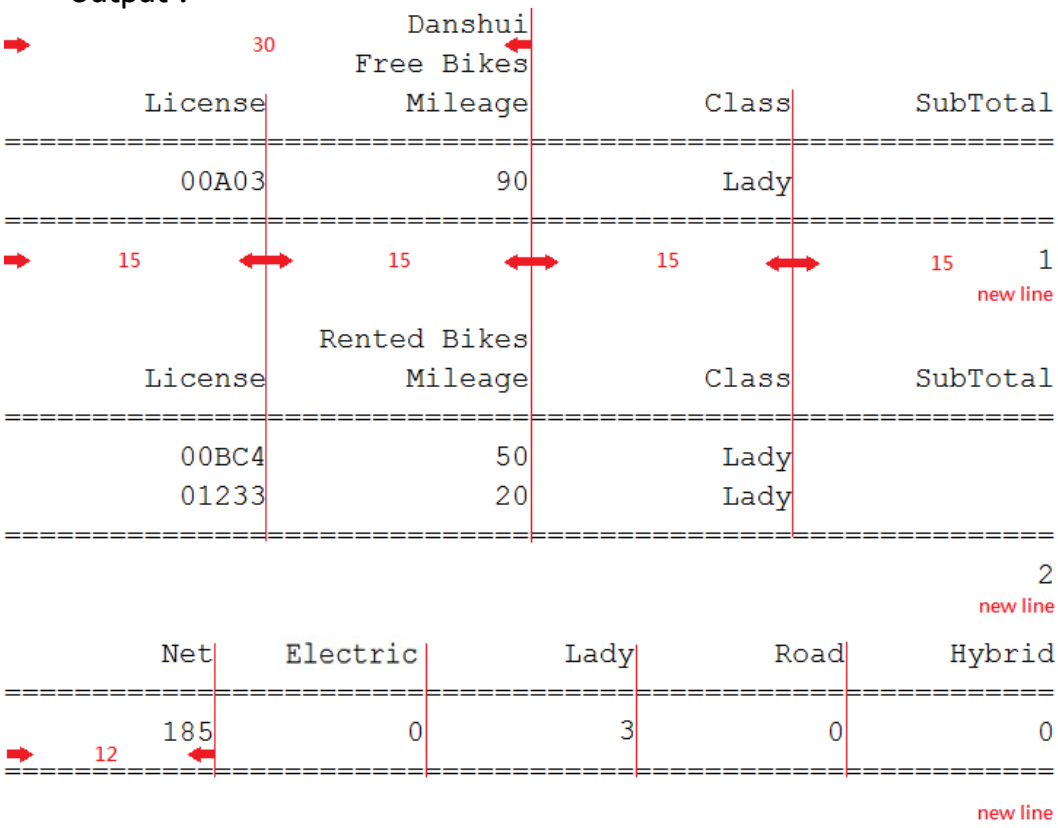
(2)Rented Bike Heap:

Print “Rented Bikes” and then HRent.

Example:

Input : StationReport Danshui

Output :



8. UbikeReport

You need to print the data in the order.

(1)Free Bikes:

Print the 4 heaps (from Electric=0 to Hybrid=3) of free bikes in each station (from Danshui=0 to Jingmei=11). Each heap is printed from its first node to the last one.

(2)Rented Bikes:

Print the heaps (from Electric=0 to Hybrid=3) of rented bikes in each station (from Danshui=0 to Jingmei=11). The heap is printed from its first node to the last one.

Example:

Input : UbikeReport

Output :

```
                Taipei U-bike
                  Free Bikes
    License     Mileage       Class     Station       Total
============================================================
       00A03          90        Lady     Danshui
       1DGF1           3    Electric  Hongshulin
       2ASD0           0    Electric  Hongshulin
       30AS1           1    Electric  Hongshulin
       0DGF1           3        Lady  Hongshulin
       00AS1           1        Lady  Hongshulin
       00001           1        Lady  Hongshulin
       00000           0        Lady  Hongshulin
       0ASD0           0        Lady  Hongshulin
       00A02         100        Lady     Jingmei
       ZXXX3          22        Lady     Jingmei
       0XXX2          18        Lady     Jingmei
       Z2228           1        Lady     Jingmei
       0XXX1          11        Lady     Jingmei
============================================================
                                                        14
                                                    new line
                 Rented Bikes
    License     Mileage       Class     Station       Total
============================================================
       00BC4          50        Lady     Danshui
       01233          20        Lady     Danshui
============================================================
                                                         2
                                                    new line
        Net     Electric        Lady        Road      Hybrid
============================================================
        185            3          13           0           0
============================================================
                                                    new line
```

9. NetSearch StationName

(1) Print StationName
(2) 15'='
(3) Print 4 type class net from Electric=0 to Hybrid=3.
(4) 15'='
(5) Print total net
(6) newline

Example

Input : NetSearch Danshui

Output :

```
Danshui
===============
Electric 0
Lady 5550
Road 0
Hybrid 0
===============
Total 5550

```

---

10. BReport

Print the Binary search tree.
The first line is "Binary Search Tree"
The second line is the preorder of the BST.
The third line is the inorder of the BST.

Example:

Input : BReport

Output :

```
Binary Search Tree
0579A->01B2F->AAAA1->A0001->BE51O->A00Z0
01B2F->0579A->A0001->A00Z0->AAAA1->B151O

```